

WHAT IS CLAIMED IS

1. A method for producing a separator for a fuel cell comprising the steps of:  
mixing carbon particles with thermoplastic resin particles to produce mixed particles;

kneading the mixed particles to form pellets;

extruding the mixed and kneaded pellets;

forming the mixed and extruded pellets into a sheet-form base material; and

forming grooves on the sheet form base material by rolling with a roller having a pattern on a peripheral surface thereof, wherein:

the pattern on the roller is transferred on the separator to have a predetermined groove pattern.

2. The method for producing the separator for the fuel cell according to Claim 1, wherein:

the mixed particles include the thermoplastic resin between 20 and 40 weight percent.

3. A separator for a fuel cell, comprising:

a sheet form base material composed of mixed carbon and thermoplastic particles; and

a plurality of rolled grooves on the surface of the sheet form base material, said grooves having a predetermined pattern.

4. A separator for a fuel cell according to Claim 3, wherein:

said sheet form base material comprises 20 -40 weight percent of thermoplastic resin particles.

5. A separator for a fuel cell according to Claim 3, wherein:

said rolled grooves are formed by rolling with a roller over the sheet form base material, said roller having a pattern on peripheral surfaces thereof.

6. A fuel cell, comprising:

a separator, wherein the separator comprises a sheet form base material composed of mixed carbon and thermoplastic particles; and

a plurality of rolled grooves on the surface of the sheet form base material, said grooves having a predetermined pattern.

7. A fuel cell according to Claim 6, wherein:

said sheet form base material comprises 20 -40 weight percent of thermoplastic resin particles.

8. A fuel cell according to Claim 6, wherein:

said rolled grooves are formed from rolling with a roller over the sheet form base material, said roller having a pattern on peripheral surfaces thereof.